What is claimed is:

1. A walking mobile system comprising:

a main body having at both sides of its lower part a plurality of leg portions attached thereto so as to be each pivotally movable biaxially, each of the leg portions having a knee portion in its midway and a foot portion at its lower end, the foot portions being attached to their corresponding leg portions so as to be pivotally movable biaxially, drive means for pivotally moving respective leg, knee, and foot portions, a gait forming part for forming gait data including target angle path, target angle velocity, and target angle acceleration corresponding to a required motion, and a walk controller for drive-controlling the drive means based on the gait data, characterized in that,

the walk controller comprises force sensors for detecting forces applied to soles of respective foot portions, and a compensation part for adjusting the gait data from the gait forming part based on horizontal floor reaction force among the forces detected by the force sensors,

the force sensors are provided to regions, respectively, divided into a plurality at the soles of respective foot portions,

the force sensors provided to the regions next to end edges of respective soles detect a contact of foot sides, and

the compensation part adjusts the gait data from the gait forming part, referring to the contact of foot sides.

2. A walking mobile system as set forth in Claim 1, wherein the force sensor is a 3-axis force sensor, and at least a part of a outer edge of the sole as a detection part of the corresponding force sensor, in the region next to the end edges of the respective soles, forms a circular arc plane with the force sensor as the center.

3. A walking mobile system as set forth in Claim 1 or 2, whereinthe force sensor is a 3-axis force sensor, and the compensation part comprises a hexaxial force computing part for computing forces in the hexaxial direction based on detected signals from respective force sensors, and a contact detection part for detecting the contact of a foot side by a decomposition of force components.

4. A walking mobile system as set forth in Claim 2 or 3, wherein the contact detection part judges if the detected signals from respective force sensors are forces from a floor surface, or by the contact to a matter on the floor surface, and outputs flag information as to which force sensor detected the contact of a foot side to the compensation part.

5. A walk controller for a walking mobile system comprising a main body having at both sides of its lower part a plurality of leg portions attached thereto so as to be each pivotally movable biaxially, each of the leg portions having a knee portion in its midway and a foot portion at its lower end, the foot portions being attached to their corresponding leg portions so as to be pivotally movable biaxially, and drive means for pivotally moving respective leg, knee, and foot portions,

the walk controller drive-controls the drive means in accordance with gait data including target angle path, target angle velocity, and target angle acceleration formed from a gait forming part corresponding to a required motion, as well as comprises force sensors to detect forces applied to a sole of each foot portion, and a compensation part to adjust the gait data from the gait forming part based on horizontal floor reaction force among the forces detected by the force sensor, characterized in that,

the force sensors are provided to regions, respectively, divided into a plurality at the soles of respective foot portions,

the force sensors provided to the regions next to end edges of respective soles detect a contact of foot sides, and

the compensation part adjusts the gait data from the gait forming part, referring to the contact of foot sides.

6. A walk controller for a walking mobile system as set forth in Claim 5, wherein the force sensor is a 3-axis force sensor, and at least a part of a outer edge of the sole as a detection part of the corresponding force sensor, in the region next to the end edges of the respective soles, forms a circular arc plane with the force sensor as the center.

7. A walk controller for a walking mobile system as set forth in Claim 5 or 6, wherein the force sensor is a 3-axis force sensor, and the compensation part

comprises a hexaxial force computing part for computing forces in the hexaxial direction based on detected signals from respective force sensors, and a contact detection part for detecting the contact of a foot side by a decomposition of force components.

8. A walk controller for a walking mobile system as set forth in Claim 7, wherein the contact detection part judges if the detected signals from respective force sensors are forces from a floor surface, or by the contact to a matter on the floor surface, and outputs flag information as to which force sensor detected the contact of a foot side to the compensation part.

9. A walk control method for a walking mobile system comprising a main body having at both sides of its lower part a plurality of leg portions attached thereto so as to be each pivotally movable biaxially, each of the leg portions having a knee portion in its midway and a foot portion at its lower end, the foot portions being attached to their corresponding leg portions so as to be pivotally movable biaxially, drive means for pivotally moving respective leg, knee, and foot portions,

the walk control method including drive-controlling the drive means based on gait data including target angle path, target angle velocity, and target angle acceleration formed from a gait forming part corresponding to a required motion, as well as detecting forces applied to a sole of each foot portion, and also adjusting the gait data from the gait forming part by a compensation part based on horizontal floor reaction force among forces detected by force sensors, characterized in that it includes,

a first step to detect the forces by respective force sensors in regions divided into a plurality at the soles of respective foot portions,

a second step to detect a contact of respective foot sides by detected signals from the force sensors provided to the regions next to end edges of respective soles, and

a third step to adjust the gait data from the gait forming part by the compensation part, referring to the contact of foot sides.

10. A walk control method for a walking mobile system as set forth in Claim 9, wherein the force sensor is a 3-axis force sensor, and at least a part of a outer

edge of the sole as a detection part of the corresponding force sensor, in the region next to the end edges of the respective soles, forms a circular arc plane with the force sensor as the center.

11. A walk control method for a walking mobile system as set forth in Claim 9 or 10, wherein the force sensor is a 3-axis force sensor, and the compensation part comprises a hexaxial force computing part for computing forces in the hexaxial direction based on detected signals from respective force sensors, and a contact detection part for detecting the contact of a foot side by a decomposition of force components.

12. A walk control method for a walking mobile system as set forth in Claim 10 or 11, wherein the contact detection part judges if the detected signals from respective force sensors are forces from a floor surface, or by the contact to a matter on the floor surface, and outputs flag information as to which force sensor detected the contact of a foot side to the compensation part.